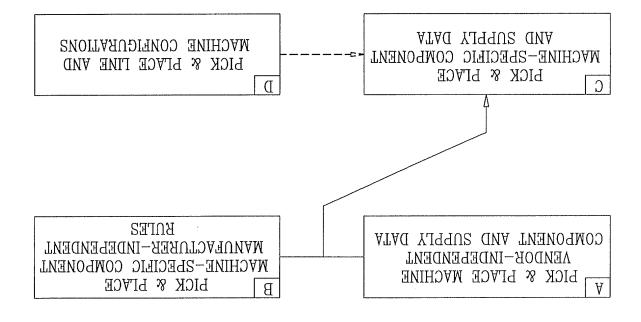
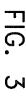
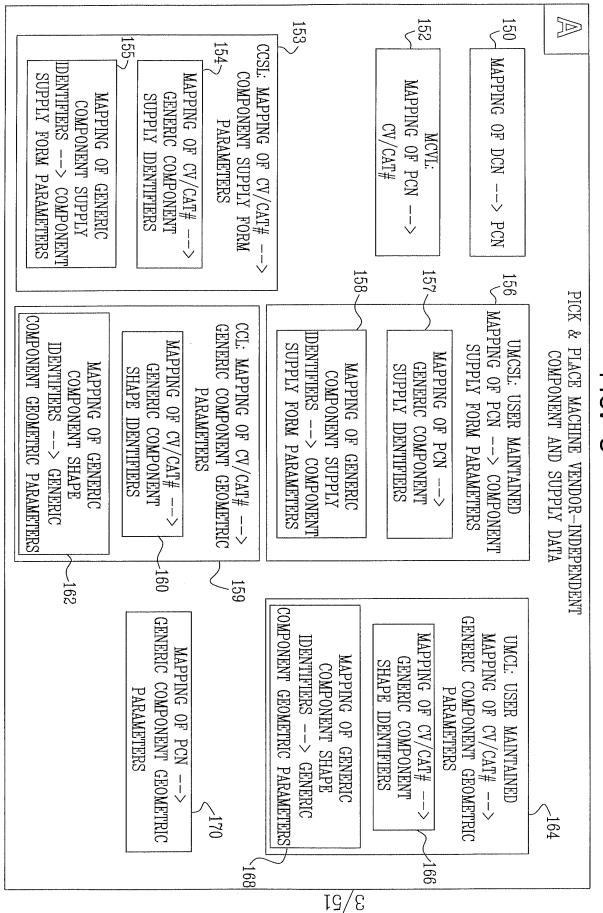
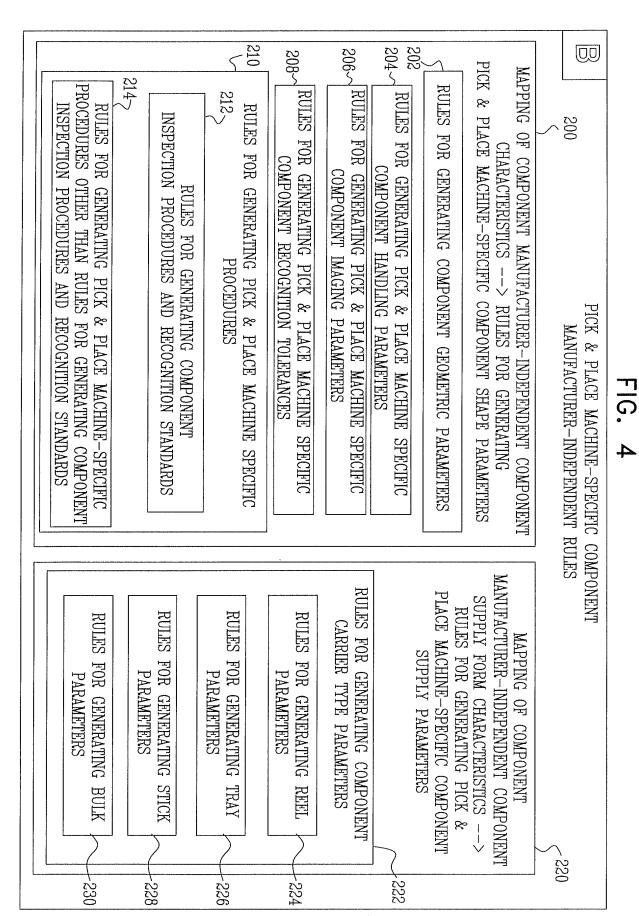


FIG. 2









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HG. 5A

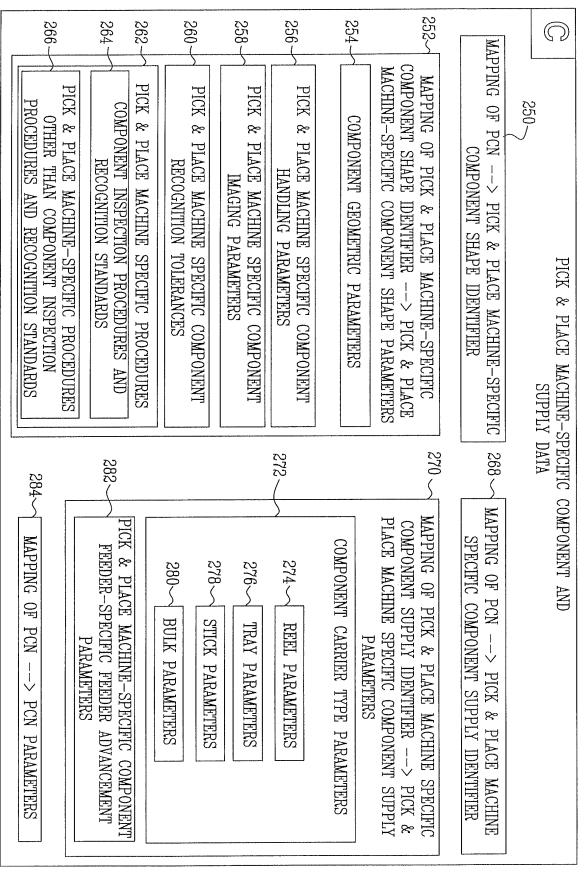
L	WIDTH/SLOT WIDTH)*SLOT WIDTH) == 0} THEN =(TAPE WIDTH/SLOT WIDTH) ELSE =((TAPE WIDTH/SLOT WIDTH)+1)	NUMBER OF SLOTS
	IF {(TAPE WIDTH - ((TAPE	0 0 0
·	{IF (REEL PITCH - ((REEL PITCH/MACHINE FEED DISTANCE)) > DISTANCE)*MACHINE FEED DISTANCE)) > 0} THEN =(REEL PITCH - ((REEL PITCH/MACHINE FEED DISTANCE)*MACHINE FEED DISTANCE) DISTANCE)/MACHINE SUB-FEED DISTANCE) ELSE NOT RELEVANT	MACHINE SUB-FEED
'	=(REEL PITCH/MACHINE FEED DISTANCE)	MACHINE FEED
L	RULES FOR GENERATING PICK & PLACE MACHINE SPECIFIC COMPONENT REEL PARAMETER	PICK & PLACE MACHINE SPECIFIC COMPONENT REEL PARAMETER

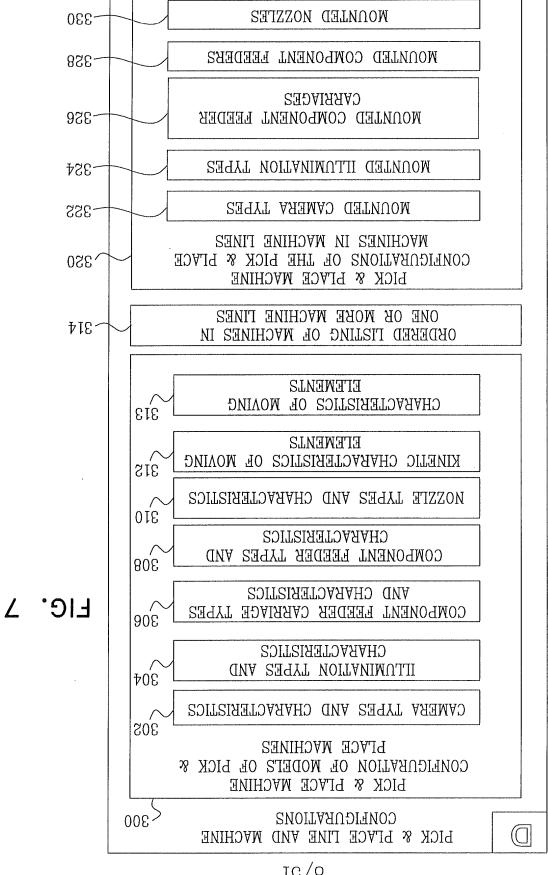
FIG. 5B

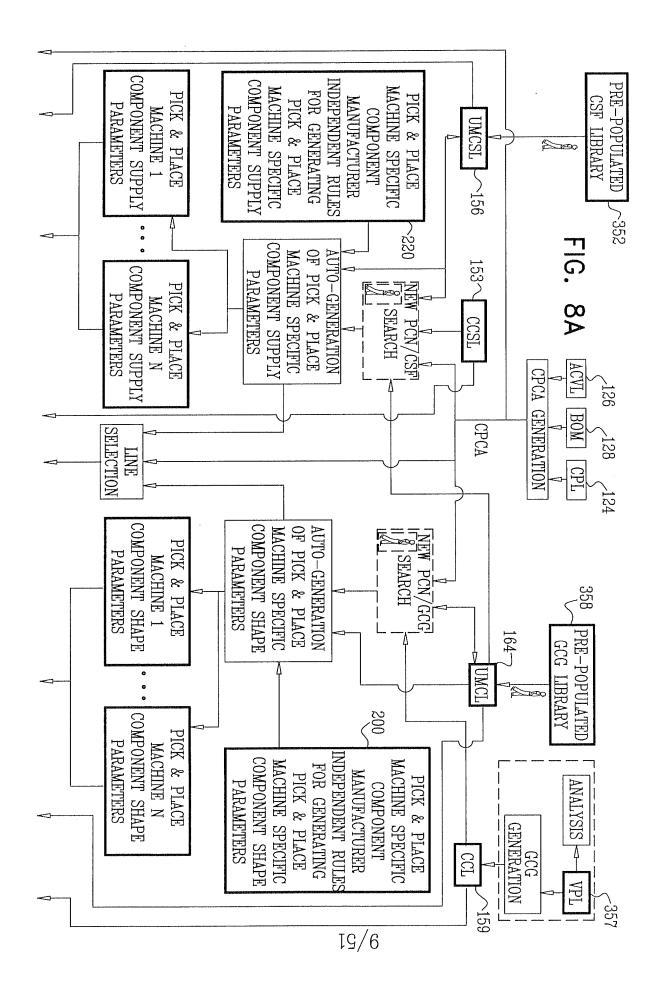
OT	COMPONENT MANUFACTURER-INDEPENDENT PICK & PLACE COMPONENT CHARACTERISTIC MACHINE SPECIFIC (COMPONENT TYPE) COMPONENT SHAPE PARAMETER PICKUP DEPTH	PICKUP DEPTH	•••	NAMED NOZZIE	MINIMUM	MAXIMUM NOZZLE
=COMF HE HE HE NOT RE DIMENS DIMENS DIMENS	BGA September 19	=COMPONENT HEIGHT	000	NOT RELEVANT	=MIN(X DIMENSION, Y DIMENSION)*0.7	=MAX(X DIMENSION, Y DIMENSION)*0.95
QFP MPONENT HEIGHT HEIGHT RELEVANT RELEVANT RELEVANT RELEVANT NSION, Y NSION, Y NSION, Y NSION)*0.95	QFP =COMPONENT HEIGHT	=COMPONENT HEIGHT	•••	NOT RELEVANT	=MIN(X DIMENSION, Y DIMENSION)*0.7	=MAX(X DIMENSION, Y DIMENSION)*0.95
CONNECTORS =COMPONENT HEIGHT HEIGHT #EIGHT #EIGHT #EIGHT #EIGHT #EIGHT #IF {(MAX(X DIMENSION, Y DIMENSION)/MIN(X DIMENSION, Y DIMENSION)>=2 && MIN(X DIMENSION, Y DIMENSION, Y DIMENSION, Y DIMENSION, Y DIMENSION), Y DIMENSION, Y DIMENSION)/AIN(X DIMENSION, Y DIMENSION)/AIN(X DIMENSION, Y DIMENSION)*0.7 ##EIGHT #IF (MAX(X DIMENSION) > 2 244 ##EIGHT #IF (MAX(X DIMENSION, Y DIMENSION)*0.7 ##EIGHT #IF (MAX(X DIMENSION)) > 2 244 ##EIGHT #IF (MAX(X DIMENSION) > 2 244 ##EIGHT #IF (MAX(X DIME	CONNECTORS =COMPONENT HEIGHT	=COMPONENT HEIGHT	•••		IF {(MAX(X DIMENSION, Y DIMENSION)/MIN(X DIMENSION, Y DIMENSION))<2} THEN =MIN(X DIMENSION, Y DIMENSION)*0.7 ELSE NOT RELEVANT	IF {(MAX(X DIMENSION, Y DIMENSION)/MIN(X DIMENSION, Y DIMENSION))<2} THEN =MIN(X DIMENSION, Y DIMENSION)*0.95 ELSE NOT RELEVANT

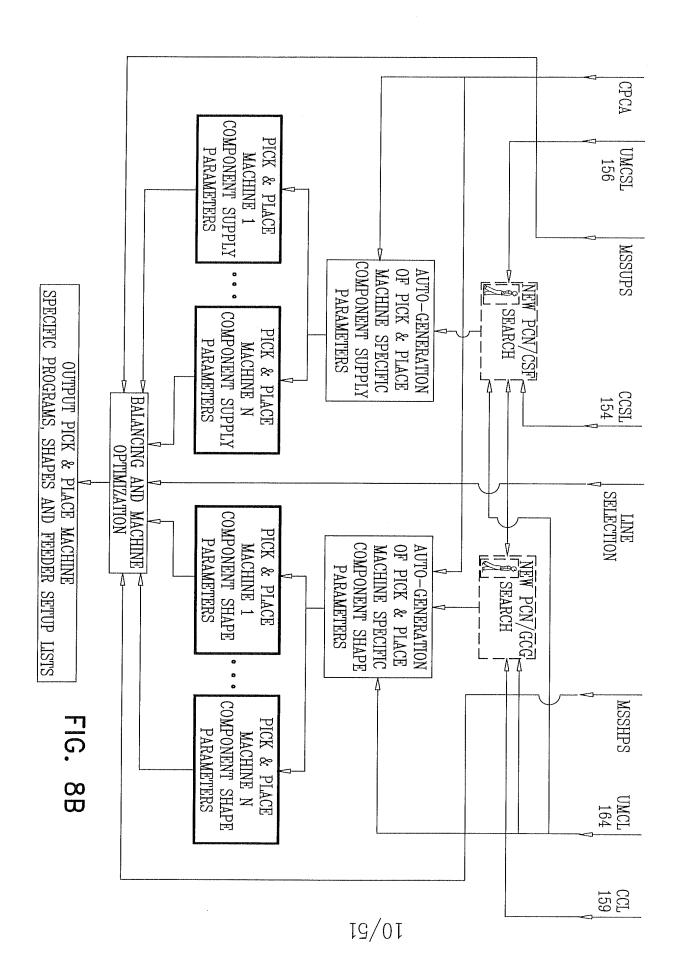
< 246

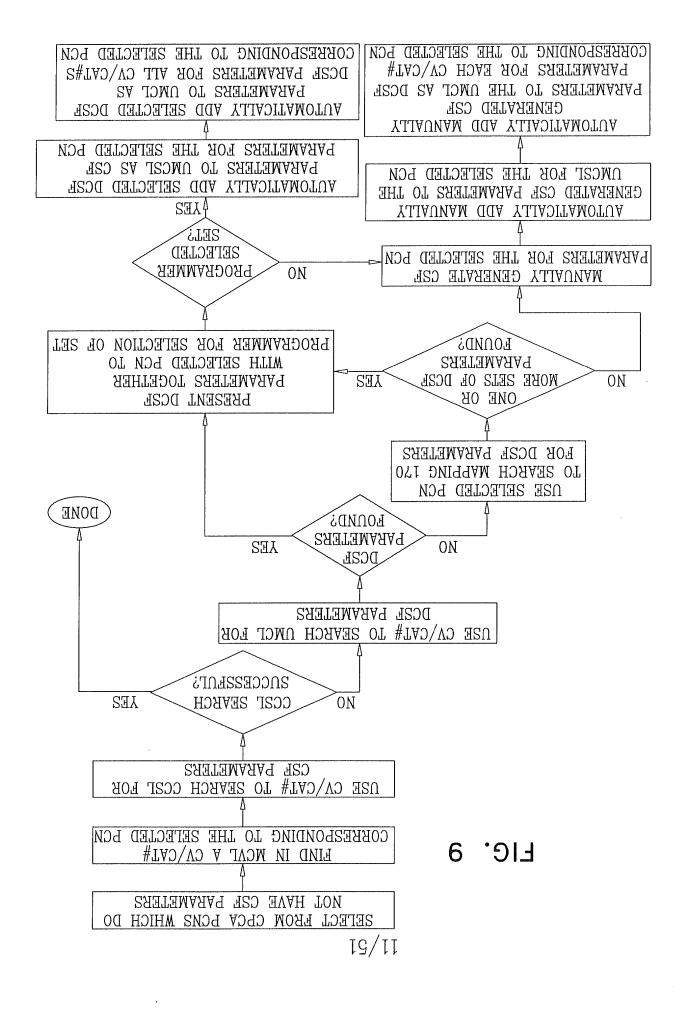












COKKEZHONDING WASUP ASSIGN THE VALUE TO THE

> FIG. 01

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COMPONENT SUPPLY WACHINE-SPECIFIC **BICK & PLACE** LCNS WHICH DO NOT HAVE SELECT FROM CPCA DATA

IDENTIFIERS AND/OR MSSUPS

COMPONENT SUPPLY EMPLOY GENERIC

PARAMETERS FOR THE MAPPING 158 TO OBTAIN CSF

IDENTIFIERS IN SECOND STACE

SEFECLED LCM

COMPONENT SUPPLY WYCHINE-SPECIFIC TO GENERATE PICK & PLACE EMPLOY CSF PARAMETERS

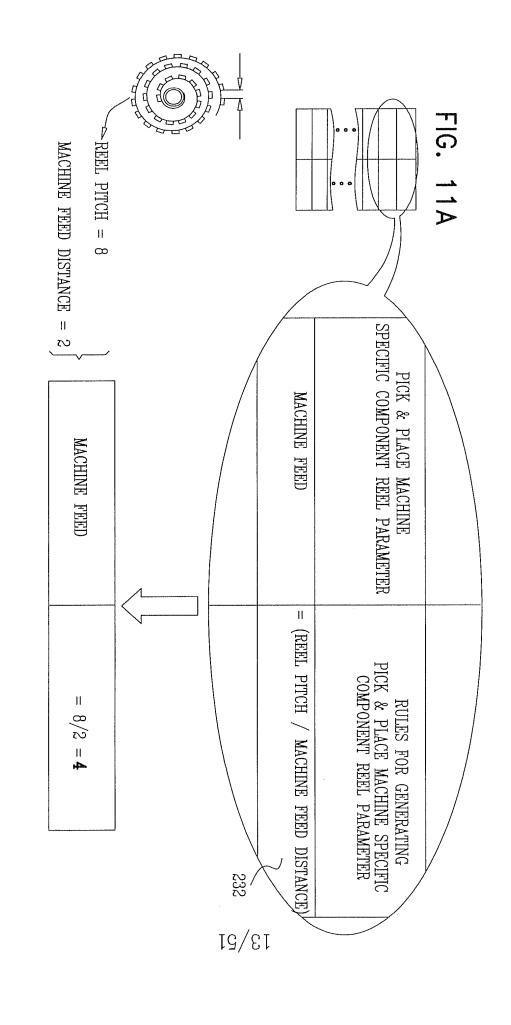
SEFECLED BCN IDENTIFIER FOR THE

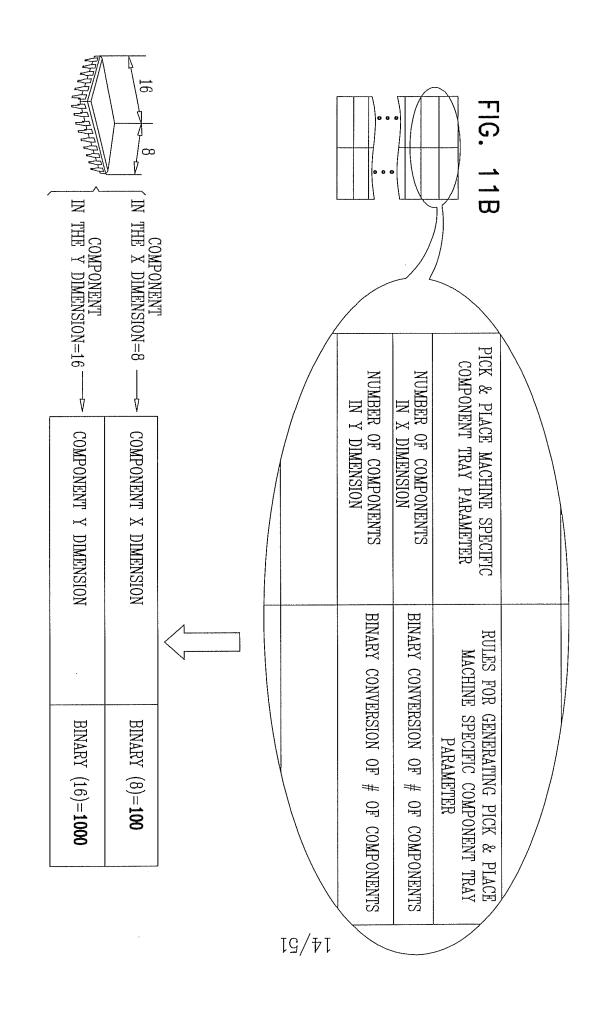
THE SELECTED PCN TO OBTAIN CARRIER TYPE FOR EMPLOY CSF PARAMETERS

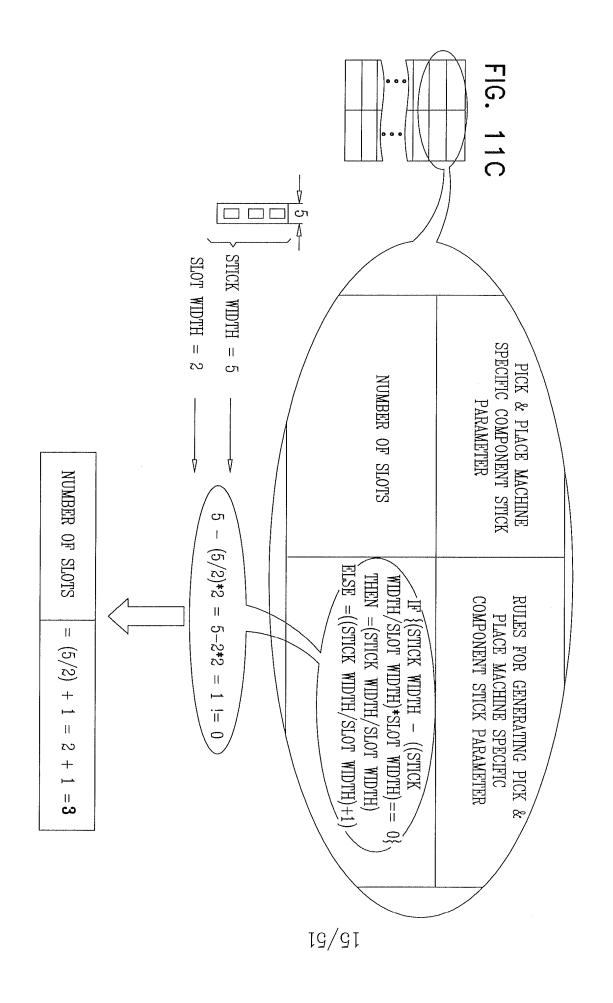
KNLE SET TO ACCESS APPROPRIATE AND MACHINE IDENTIFICATION EMPLOY CARRIER TYPE

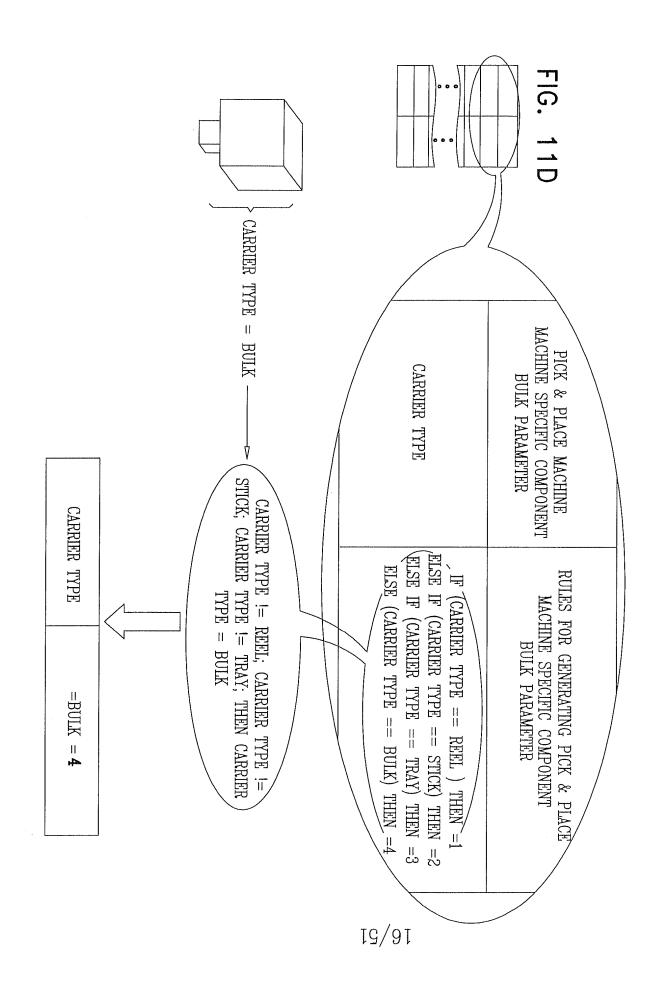
OPERATE EACH RULE IN

VALUE PARAMETERS TO YIELD A THE RULE SET BASED ON CSF









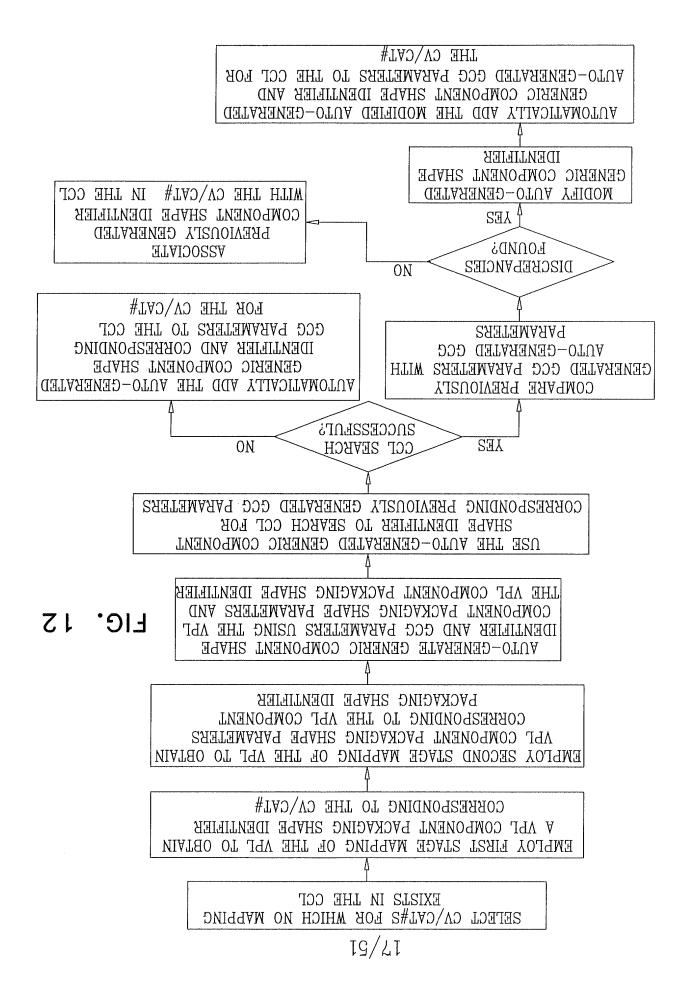
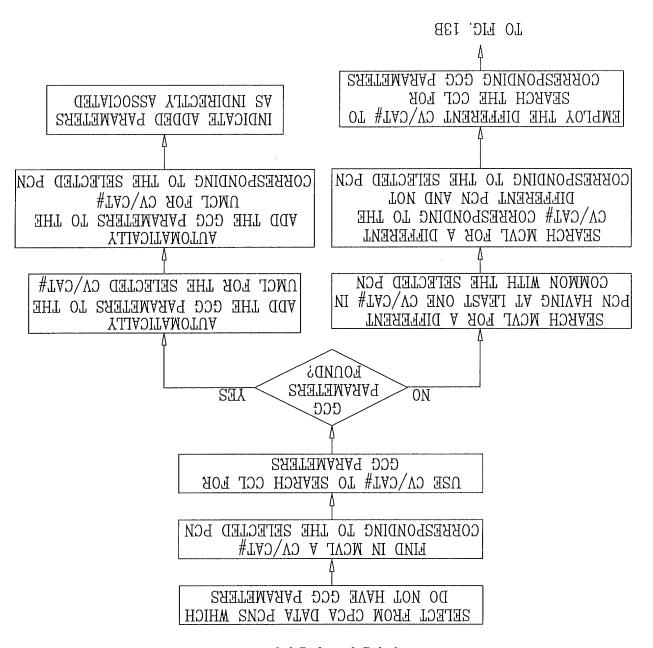
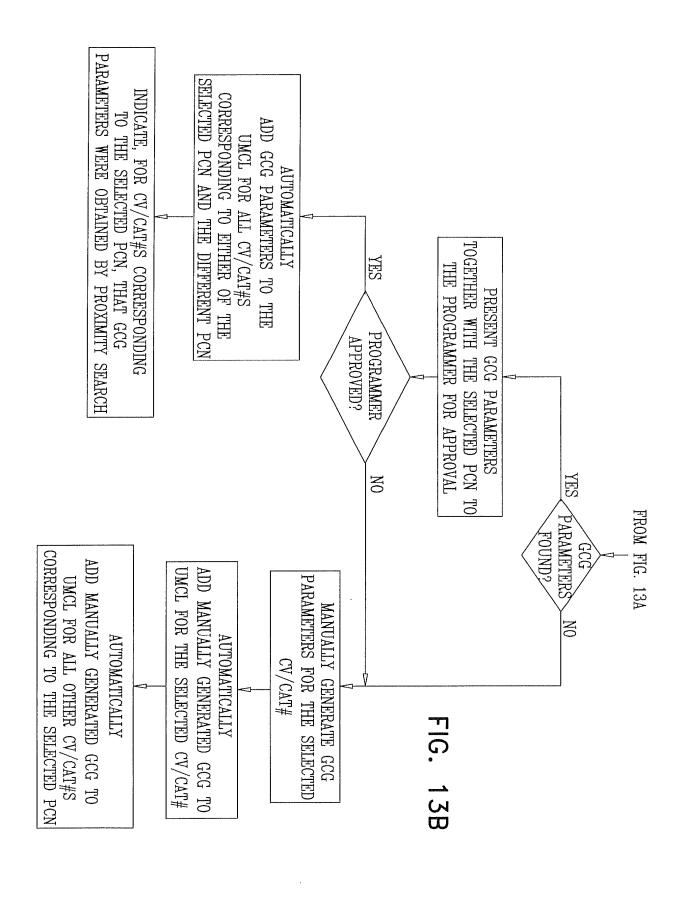


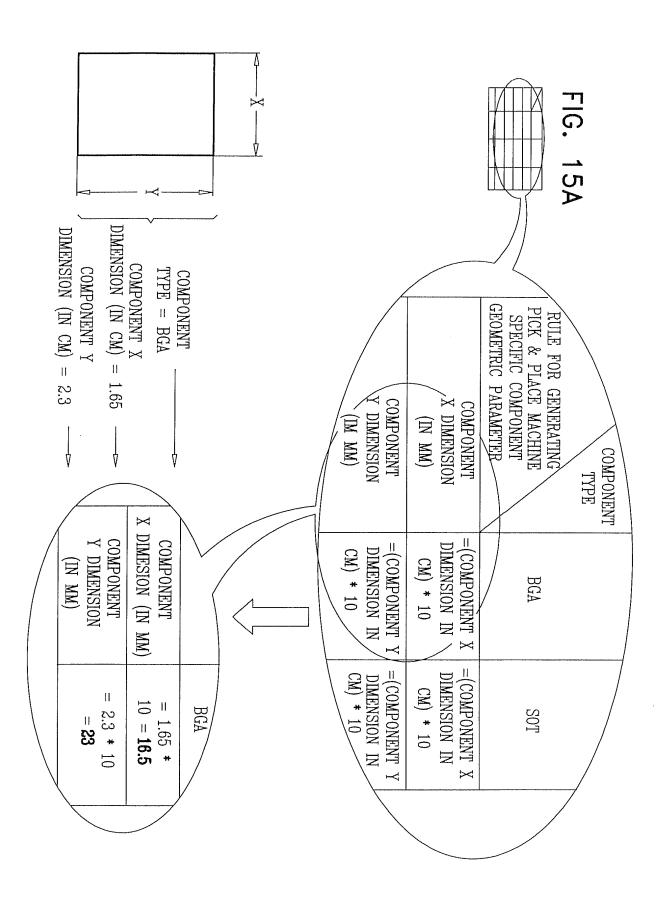
FIG. 13A

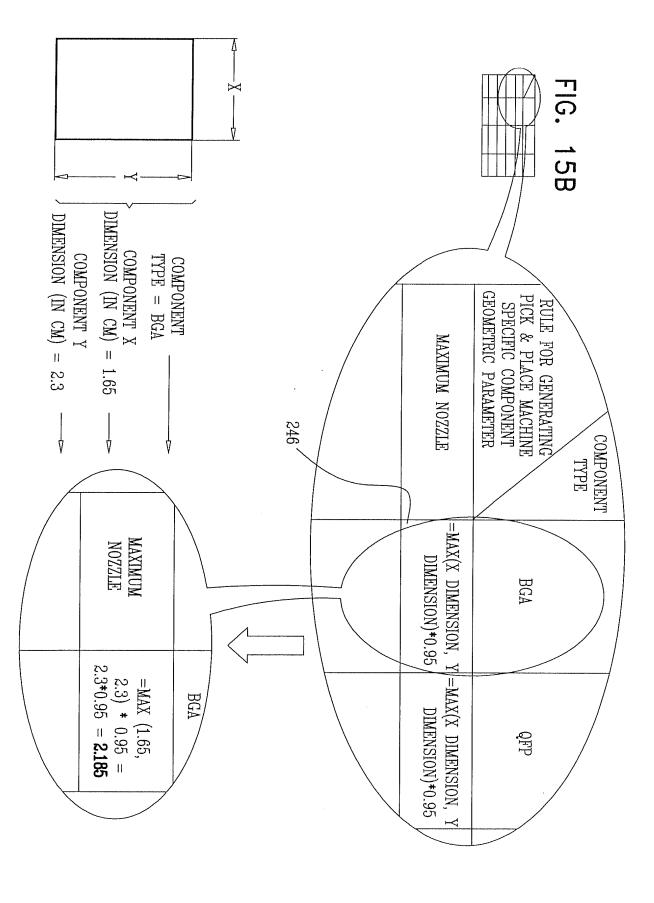




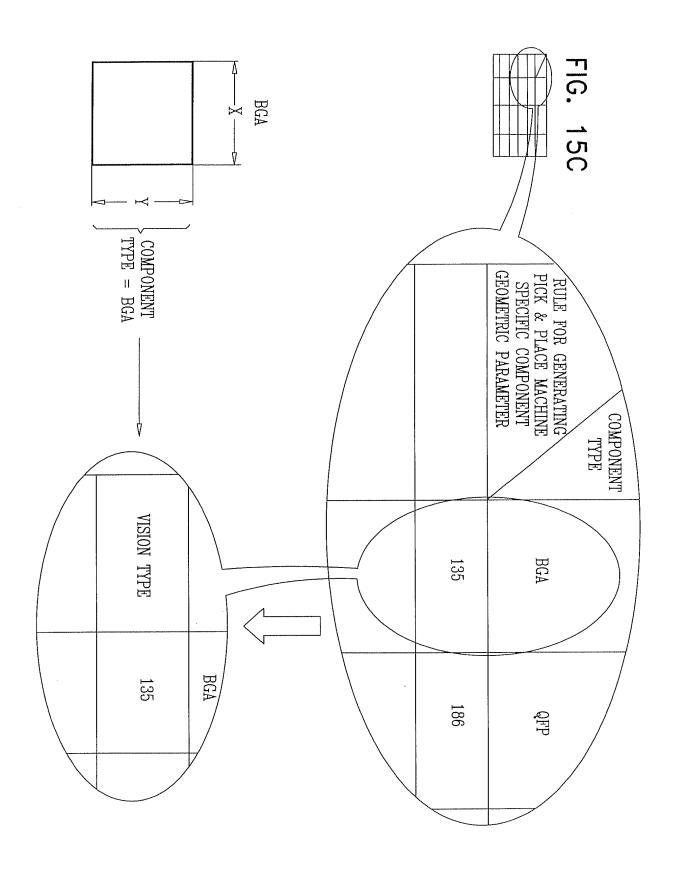
COKKESHONDING WSZHE ASSIGN THE VALUE TO THE TO YIELD A VALUE BYZED ON CCC LYKYMETERS RULE IN THE RULE SET OPERATE EACH RELEVANT RULE SET TO ACCESS APPROPRIATE AND MACHINE IDENTIFICATION EMPLOY COMPONENT TYPE FOR THE SELECTED PCN TO OBTAIN COMPONENT TYPE EMPLOY GCG PARAMETERS **EOK THE SELECTED PCM** COMPONENT SHAPE IDENTIFIER WYCHINE-SPECIFIC TO GENERATE PICK & PLACE EMPLOY GCG PARAMETERS SEFECLED LCM PARAMETERS FOR THE MAPPING 168 TO OBTAIN GCG IDENLIFIERS IN SECOND STAGE COMPONENT SHAPE EMPLOY GENERIC IDENTIFIERS AND/OR MSSHPS COMPONENT SHAPE **WACHINE-SPECIFIC BICK & PLACE** PCNS WHICH DO NOT HAVE SELECT FROM CPCA DATA

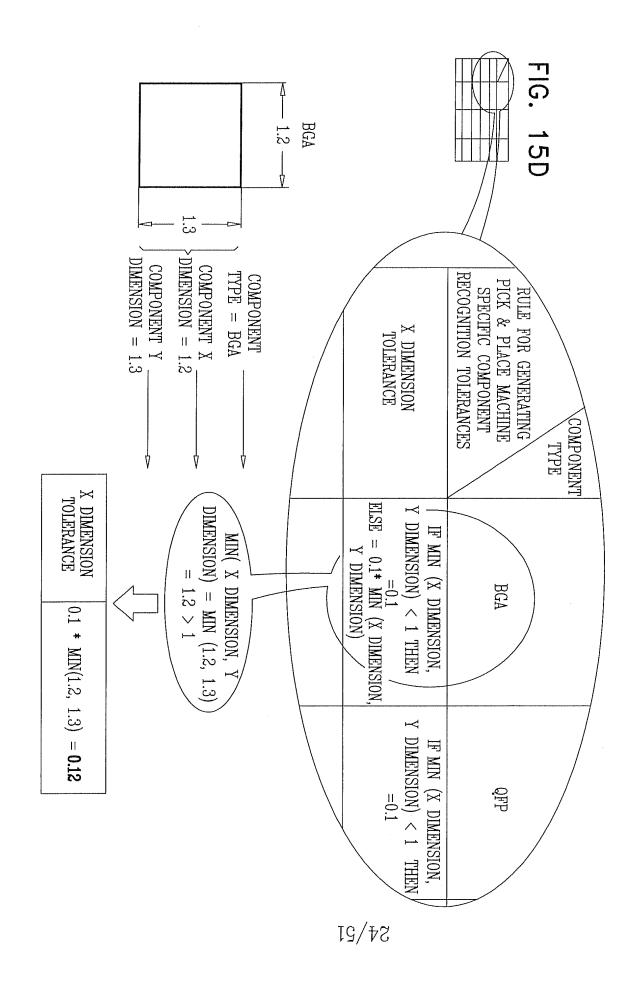
FIG. 14

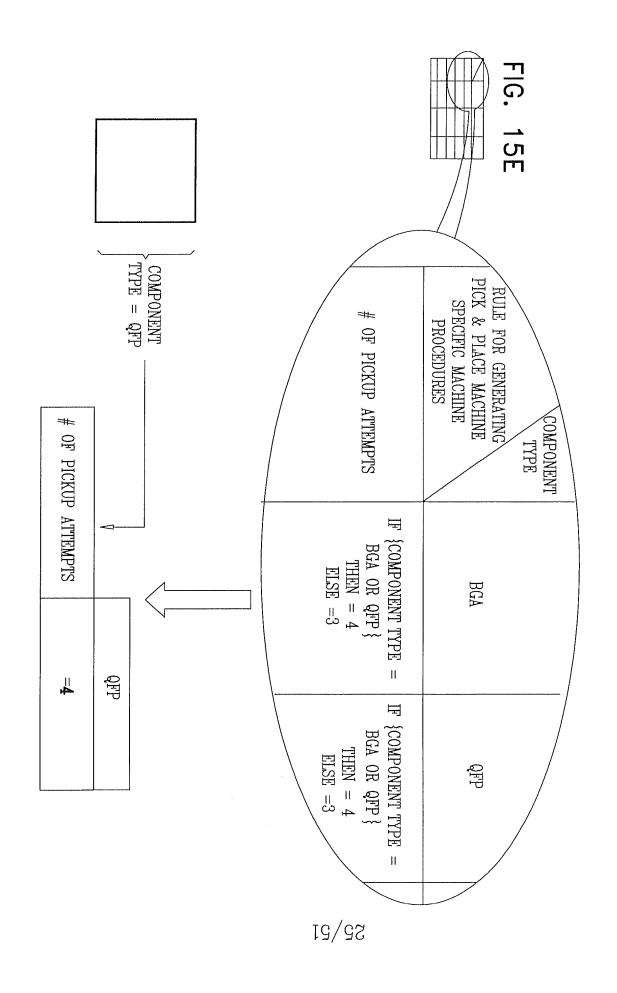




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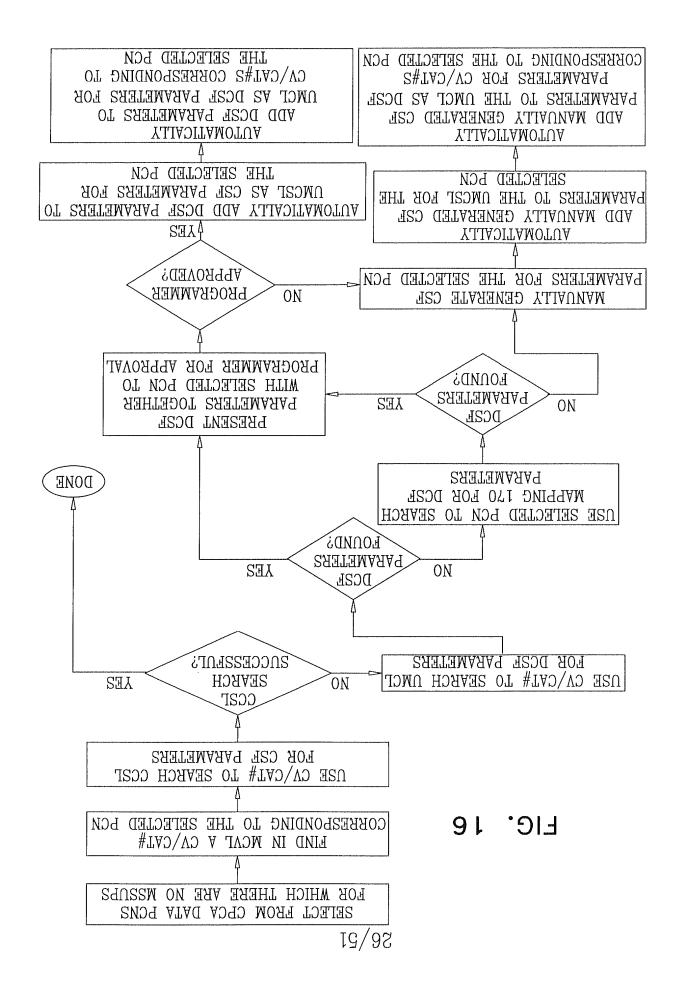
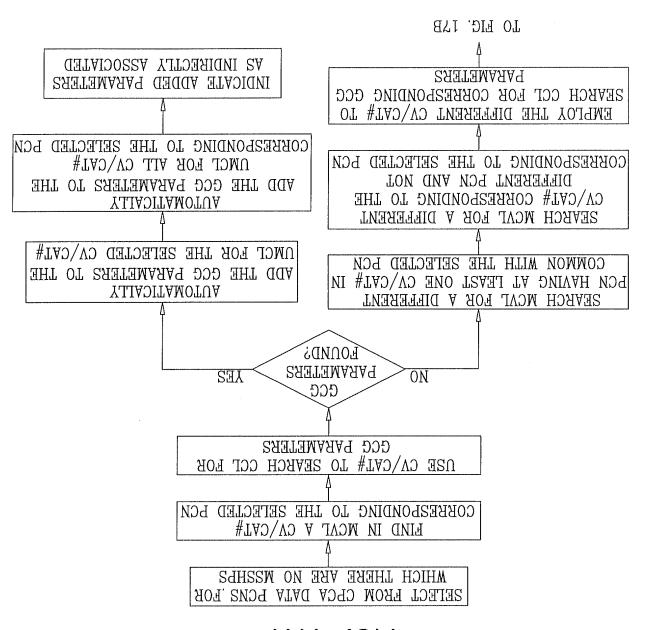
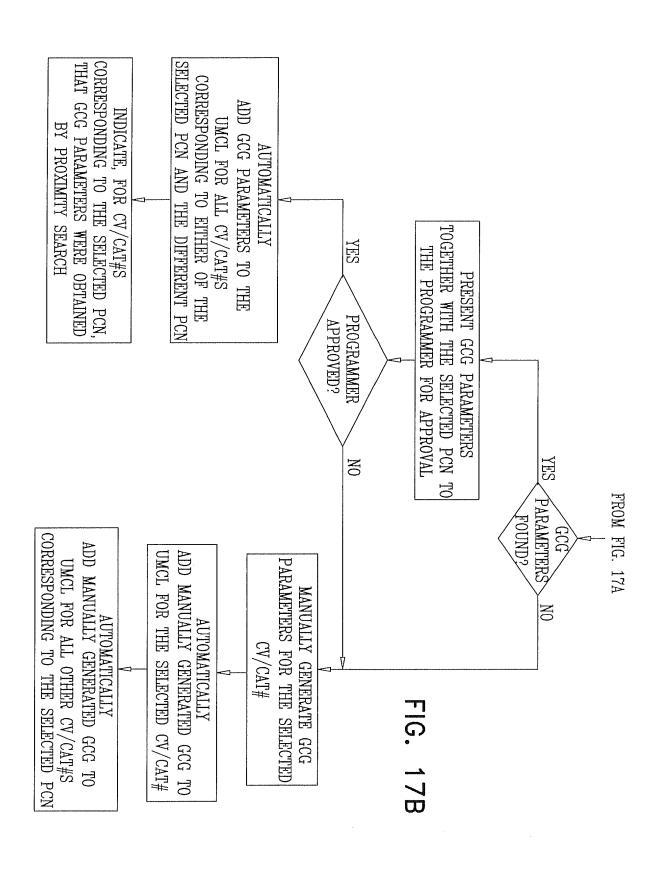
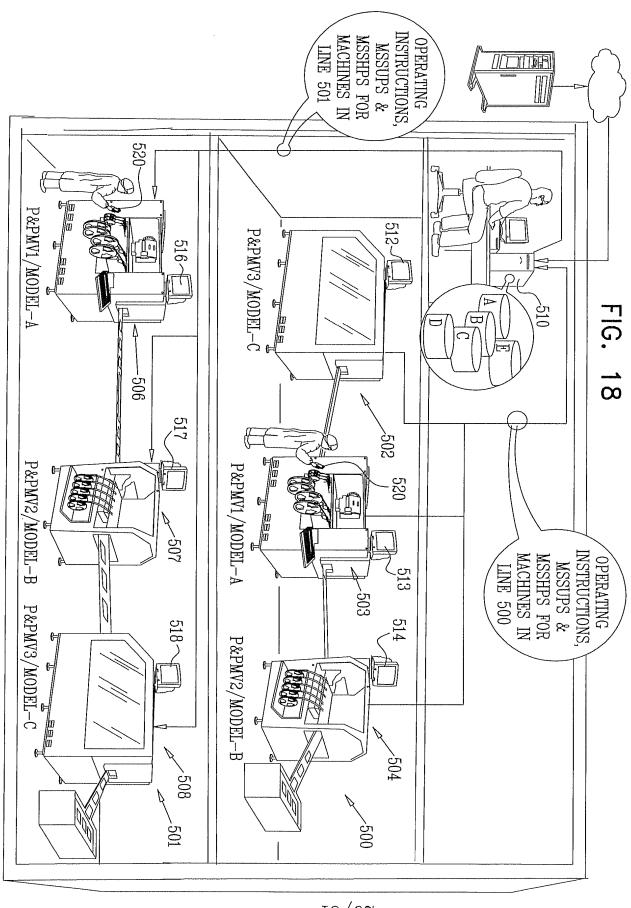


FIG. 17A

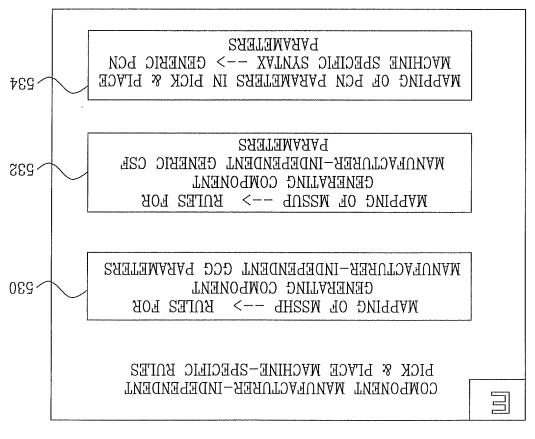


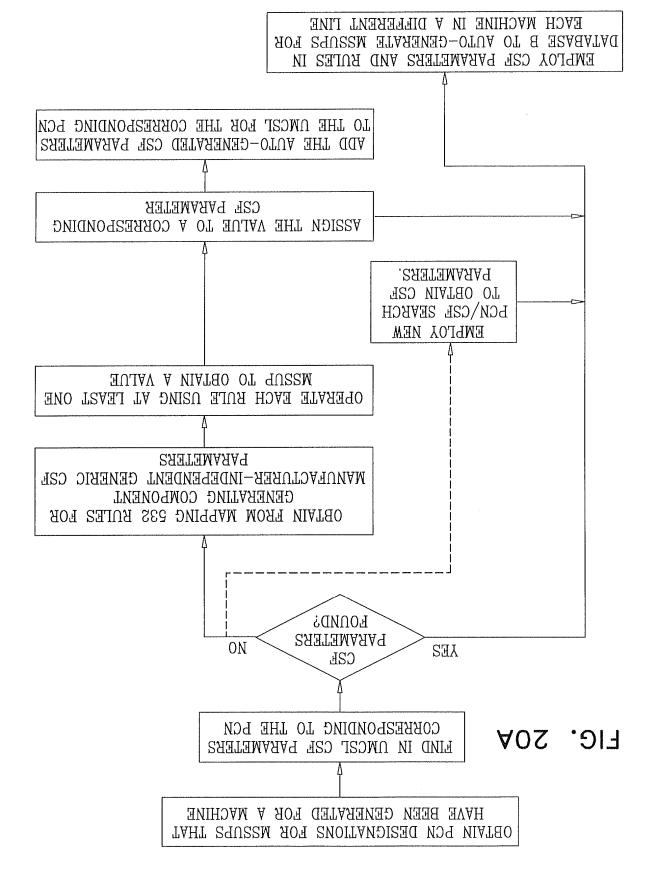




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FIG. 19





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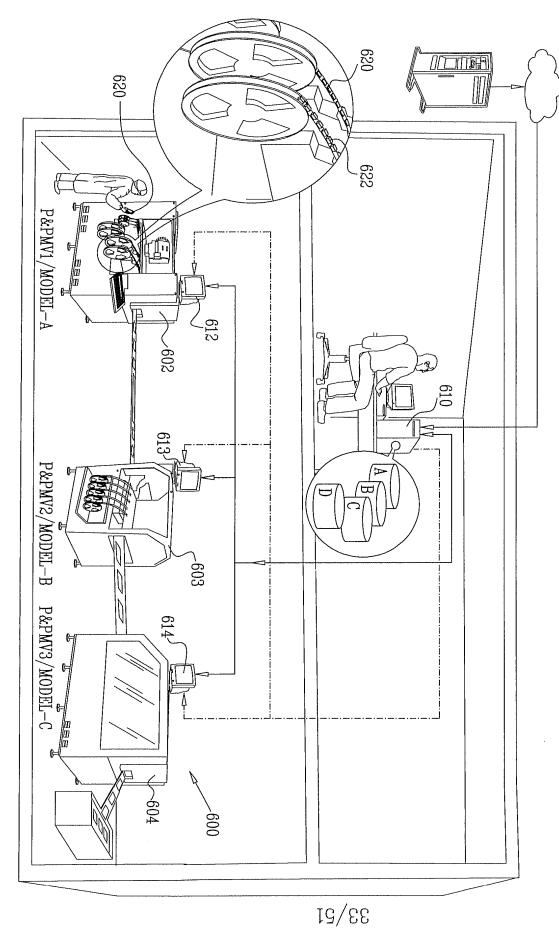
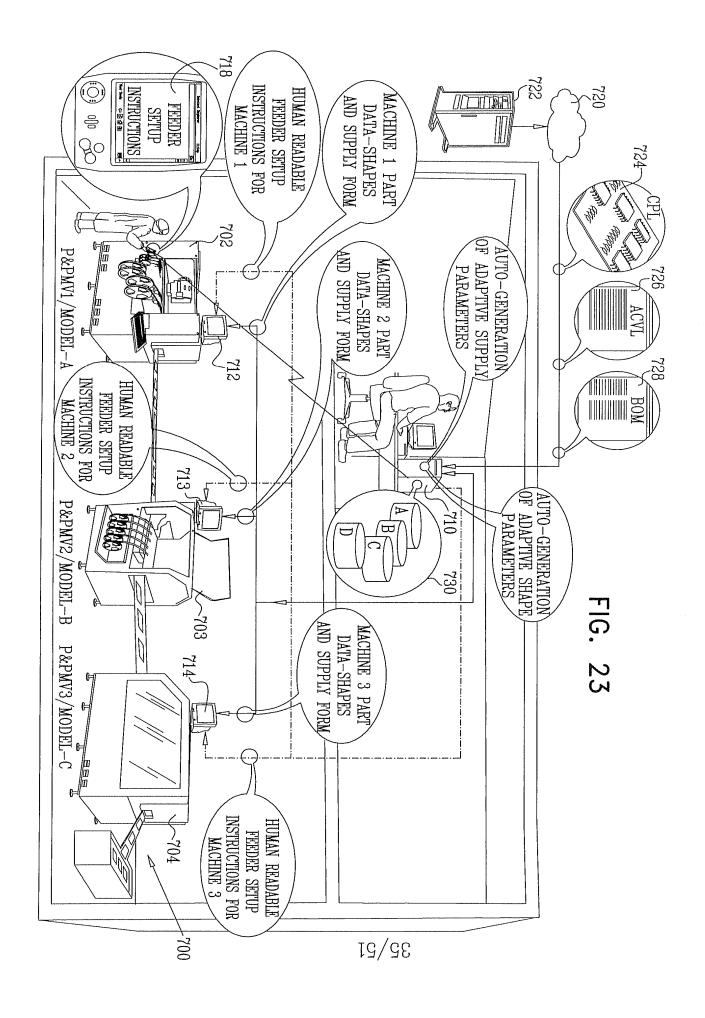
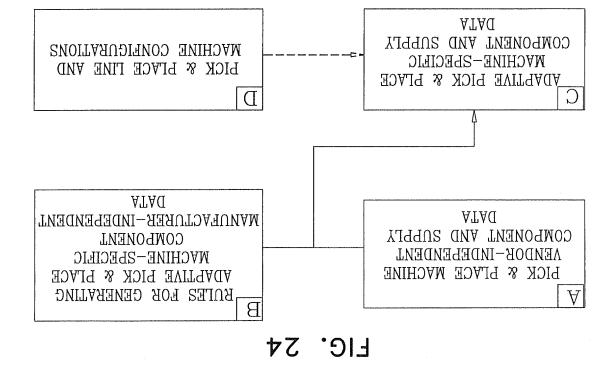
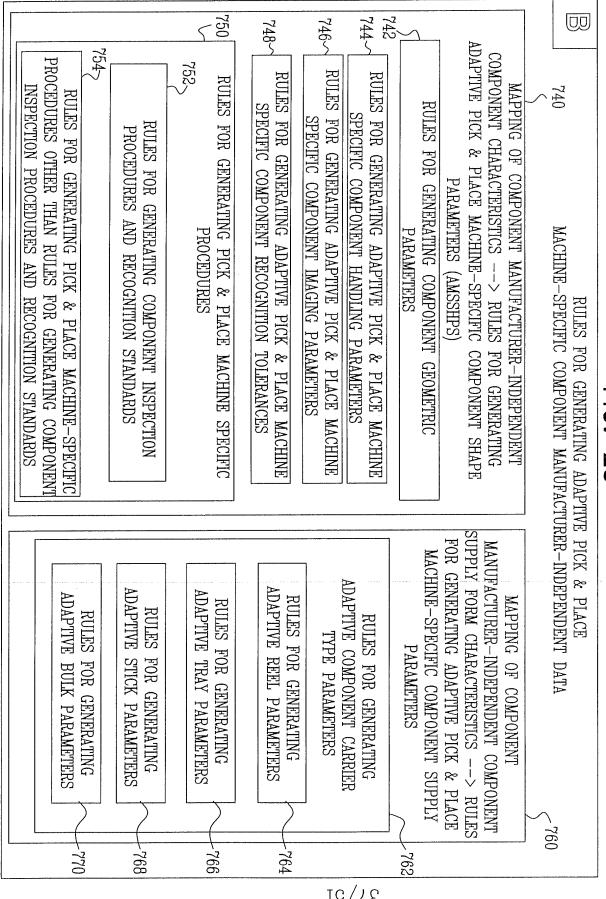


FIG. 21









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FIG. 26A

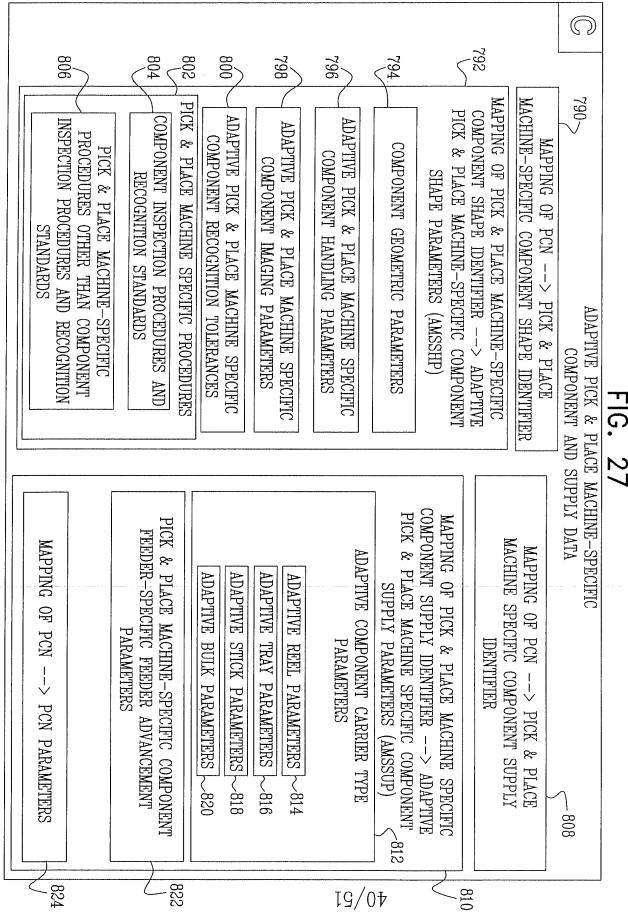
	o o	o o
277 <u> </u>	TRAY LIFTER: IF { FRONT TRAY LIFTER} THEN =NAME B ELSE THEN =NAME B	LEEDEK NYWE
	RULES FOR TRAY PARATIVE SPECIFIC COMPONENT SPECIFIC COMPONENT TRAY PARAMETER	PICK & PLACE MACHINE SPECIFIC COMPONENT TRAY PARAMETER

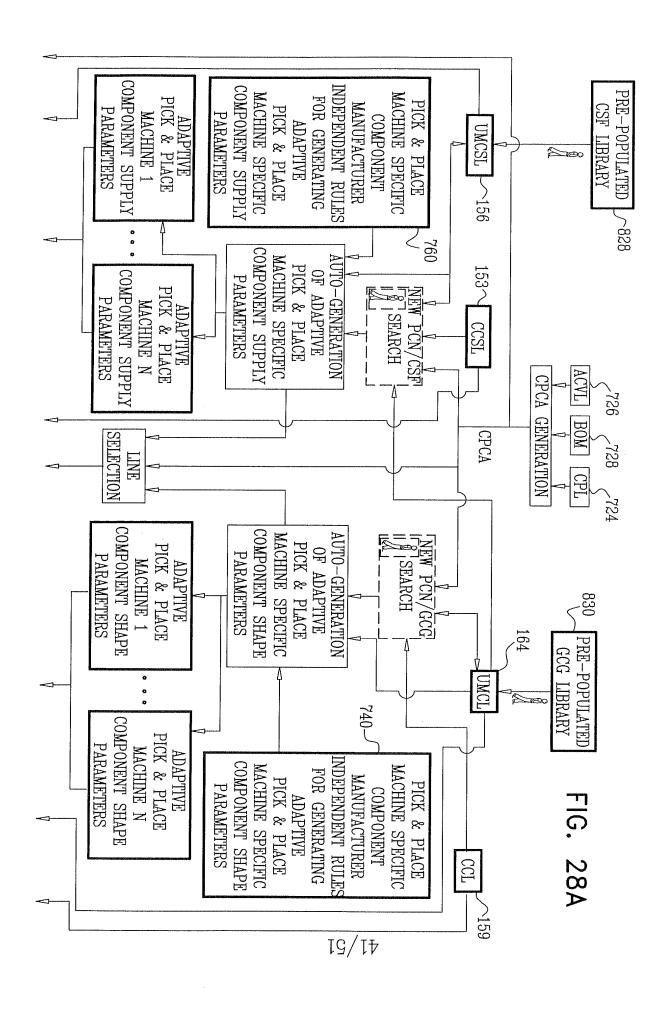
HG. 26B

	0 0 0	VISION ALGORITHM	COMPONENT ADAPTIVE MANUFACTURER—INDEPENDENT PICK & PLACE COMPONENT CHARACTERISTIC MACHINE SPECIFIC (COMPONENT TYPE) COMPONENT SHAPE PARAMETER	
	0 0 0	FOR BACKLIGHTING: IF {#LEADS > 100}THEN NOT RELEVANT ELSE =105 FOR FRONTLIGHTING: =103	BGA <782	
	0 9 0	FOR BACKLIGHTING: NOT RELEVANT FOR FRONTLIGHTING: =107	QFP <784	
	0 0 0	IF {LEAD-PITCH < 0.01} THEN USE FRONTLIGHTING =120 ELSE USE FRONTLIGHTING =130 OR BACKLIGHTING =150	CONNECTOR	
TC/65				

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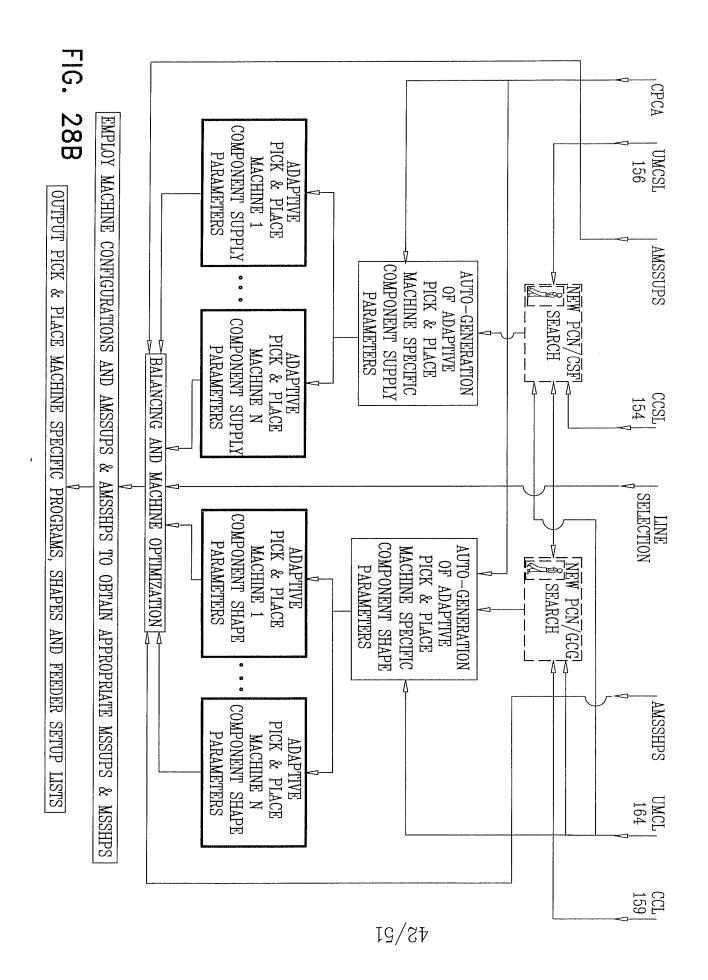


FIG. 29

IDENTIFIERS AND/OR AMSSUP COMPONENT SUPPLY WYCHINE-SPECIFIC NOT HAVE PICK & PLACE DATA PCNS WHICH DO SEFECT FROM CPCA

FOR THE SELECTED PCN OBTAIN CSF PARAMETERS STAGE MAPPING 158 TO IDENLIELERS IN SECOND COMPONENT SUPPLY EMPLOY GENERIC

EWBLOY CSF

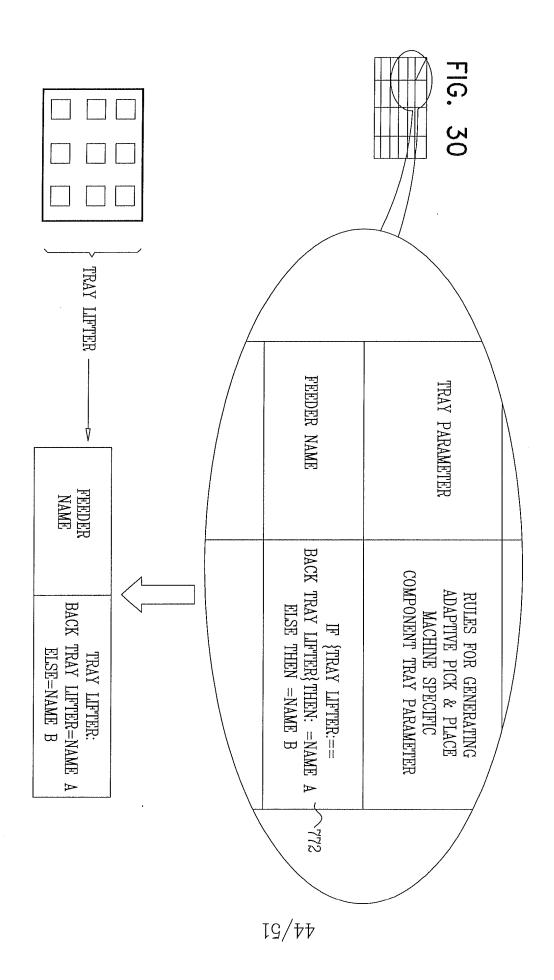
SEFECLED BCM DENTIFIER FOR THE COMPONENT SUPPLY WACHINE-SPECIFIC GENERATE PICK & PLACE PARAMETERS TO

FOR THE SELECTED PCN EMPLOY CSF PARAMETERS TO OBTAIN CARRIER TYPE

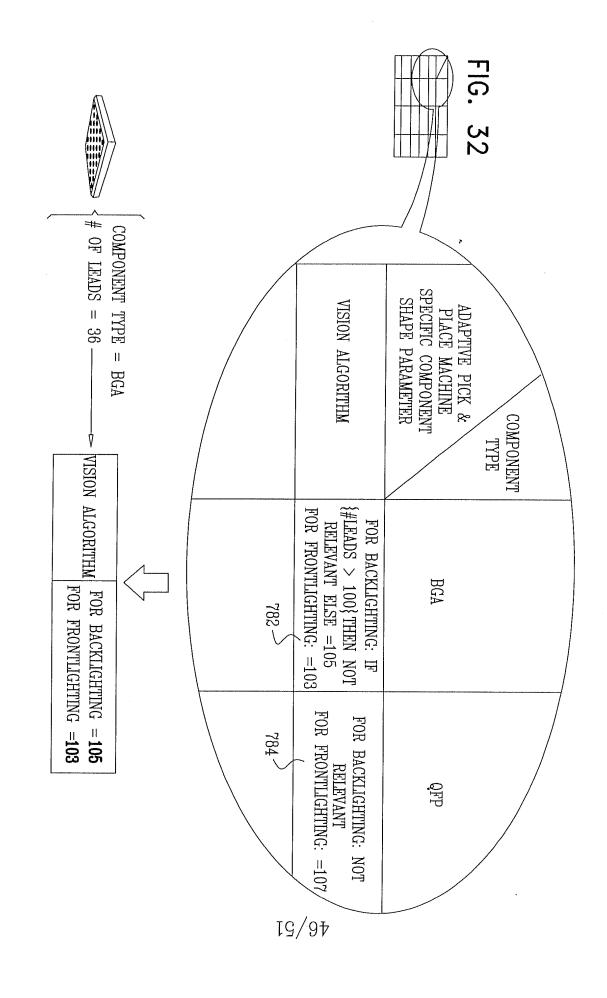
IDENTIFICATION TO ACCESS APPROPRIATE RULE SET EMPLOY CARRIER TYPE AND MACHINE

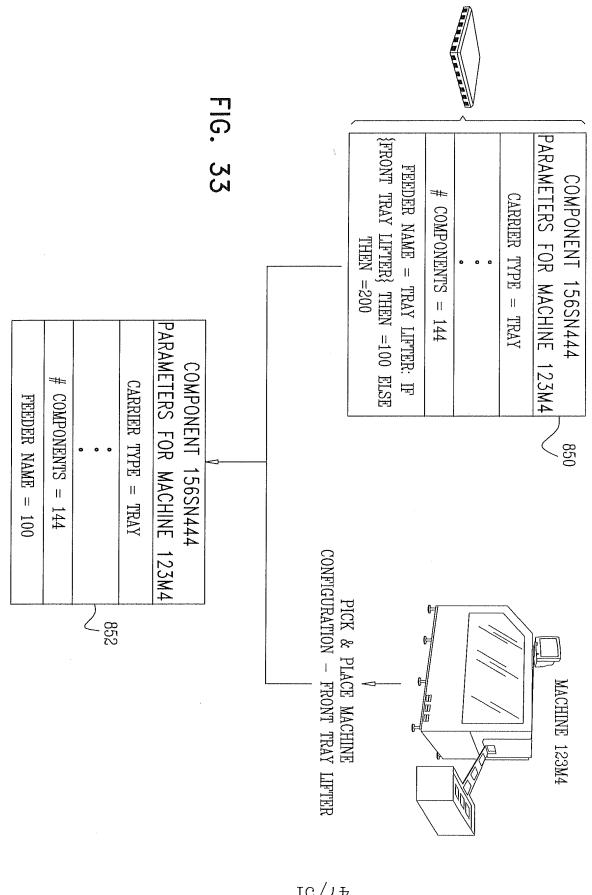
CSF PARAMETERS TO YIELD A PLURALITY OF VALUES OPERATE EACH RULE IN THE RULE SET BASED ON

MACHINE CONFIGURATIONS COBBESTONDING AMSSUP FOR CORRESPONDING ASSIGN THE PLURALITY OF VALUES TO THE

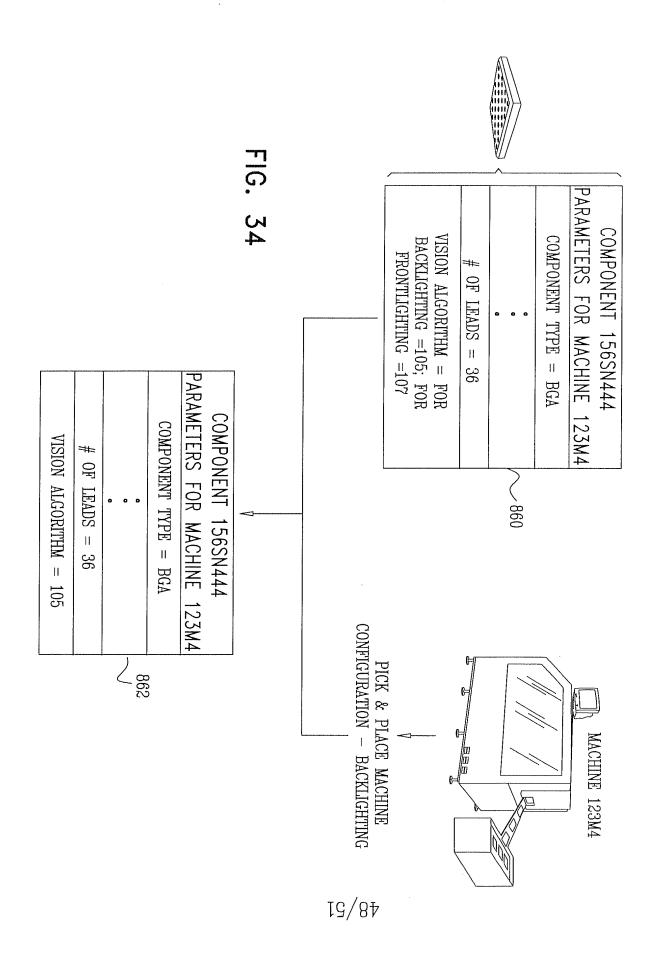


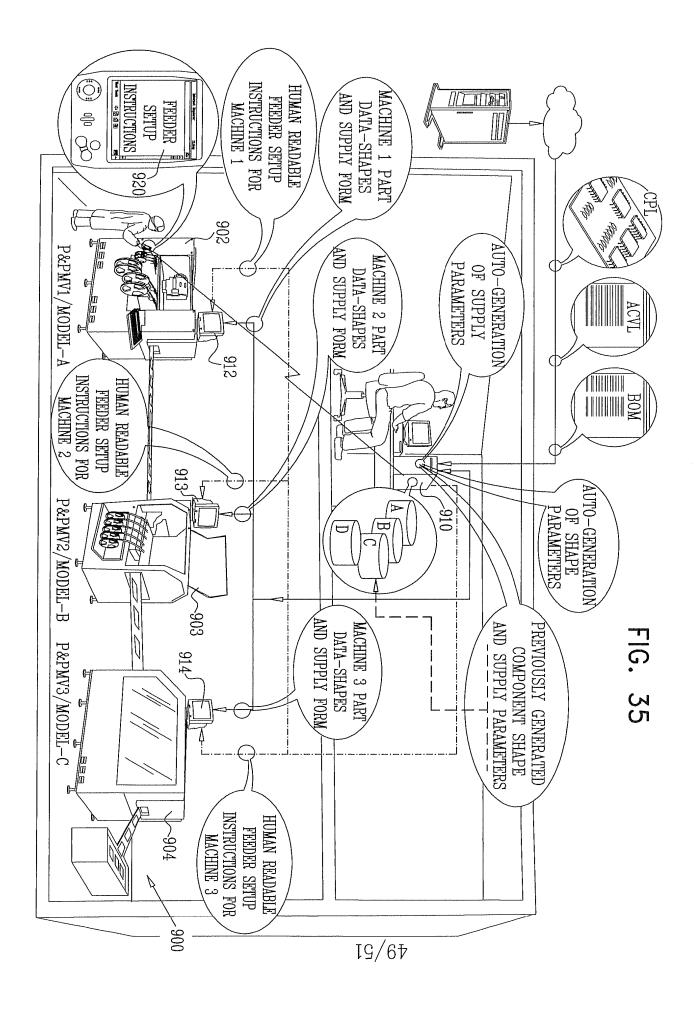
MACHINE CONFIGURATIONS CORRESPONDING AMSSHP FOR VARIOUS CORRESPONDING VESIGN THE PLURALITY OF VALUES TO THE OF VALUES BASED ON GCG PARAMETERS TO YIELD A PLURALITY OPERATE EACH RELEVANT RULE IN THE RULE SET IDENTIFICATION TO ACCESS APPROPRIATE RULE SET EMPLOY COMPONENT TYPE AND MACHINE LABE FOR THE SELECTED PCN EMPLOY GCG PARAMETERS TO OBTAIN COMPONENT **SEFECLED BCM** DENTIFIER FOR THE COMPONENT SHAPE WACHINE-SPECIFIC CENERATE PICK & PLACE PARAMETERS TO EMPLOY GCG FOR THE SELECTED PCN OBTAIN GCG PARAMETERS STAGE MAPPING 168 TO FIG. 31 IDENLIELEES IN SECOND COMPONENT SHAPE EMPLOY GENERIC IDENTIFIERS AND/OR AMSSHPS COMPONENT SHAPE WYCHINE-SPECIFIC NOT HAVE PICK & PLACE DATA PCNS WHICH DO SELECT FROM CPCA





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ASSIGN THE VALUE TO THE CORRESPONDING MSSUP CSF PARAMETERS TO YIELD A VALUE OPERATE EACH RULE IN THE RULE SET BASED ON IDENTIFICATION TO ACCESS APPROPRIATE RULE SET EMPLOY CARRIER TYPE AND MACHINE FOR THE SELECTED PCN EMPLOY CSF PARAMETERS TO OBTAIN CARRIER TYPE **SEFECLED BCM** DENTIFIER FOR THE COMPONENT SUPPLY WYCHINE-SPECIFIC CENERATE PICK & PLACE PARAMETERS TO EWBFOX CSE FOR THE SELECTED PCN OBTAIN CSF PARAMETERS STAGE MAPPING 158 TO IDENLILIEES IN SECOND COMPONENT SUPPLY EMPLOY GENERIC PRESENT INVENTION SOFTWARE OF THE AUTO-GENERATED BY IDENTIFIERS AND OR MSSUPS COMPONENT SUPPLY WACHINE-SPECIFIC NOT HAVE PICK & PLACE

FIG. 36

DATA PCNS WHICH DO SELECT FROM CPCA

FIG. 37

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PRESENT INVENTION THE SOFTWARE OF THE AUTO-GENERATED BY IDENTIFIERS AND/OR MSSHPS COMPONENT SHAPE **WYCHINE-SPECIFIC** NOT HAVE PICK & PLACE DATA PCNS WHICH DO SEFECT FROM CPCA

STAGE MAPPING 168 TO IDENLILIEES IN SECOND COMPONENT SHAPE EMPLOY GENERIC

FOR THE SELECTED PCN

PARAMETERS TO EMPLOY GCG OBTAIN GCG PARAMETERS

SEFECTED PCN DENTIFIER FOR THE COMPONENT SHAPE WACHINE-SPECIFIC CENERATE PICK & PLACE

LASE FOR THE SELECTED PCN EMPLOY GCG PARAMETERS TO OBTAIN COMPONENT

IDENTIFICATION TO ACCESS APPROPRIATE RULE SET EMPLOY COMPONENT TYPE AND MACHINE

BYZED ON GCG LYBEYELERS TO YIELD A VALUE OPERATE EACH RELEVANT RULE IN THE RULE SET

VESIGN THE VALUE TO THE CORRESPONDING MSSHP